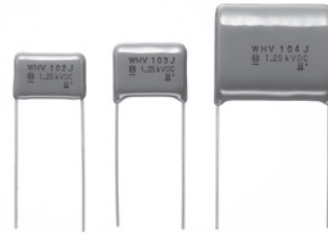


## Metalized Polypropylene Film Capacitor

### Series : ECWH(V)

Non-inductive construction using metallized polypropylene film with flame retardant epoxy resin coating.



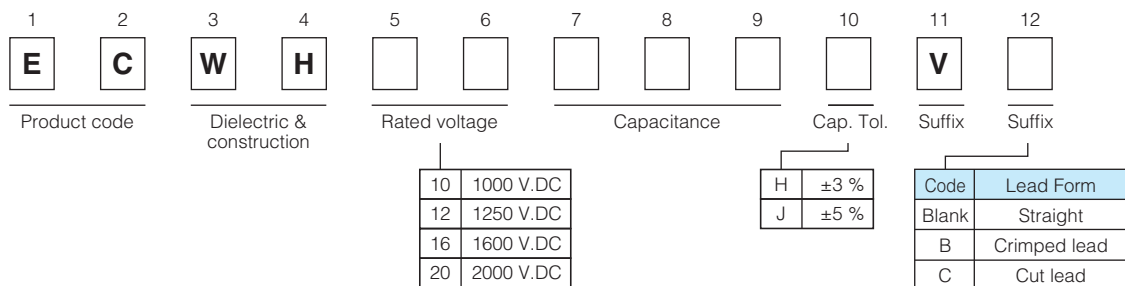
### Features

- Low-loss
- Excellent electrical characteristics
- Flame retardant epoxy resin coating
- RoHS directive compliant

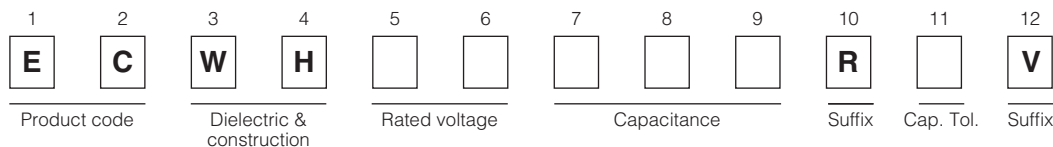
### Recommended applications

- High frequency high voltage circuit (General resonance, inverter circuit)

### Explanation of part number



- Odd size taping

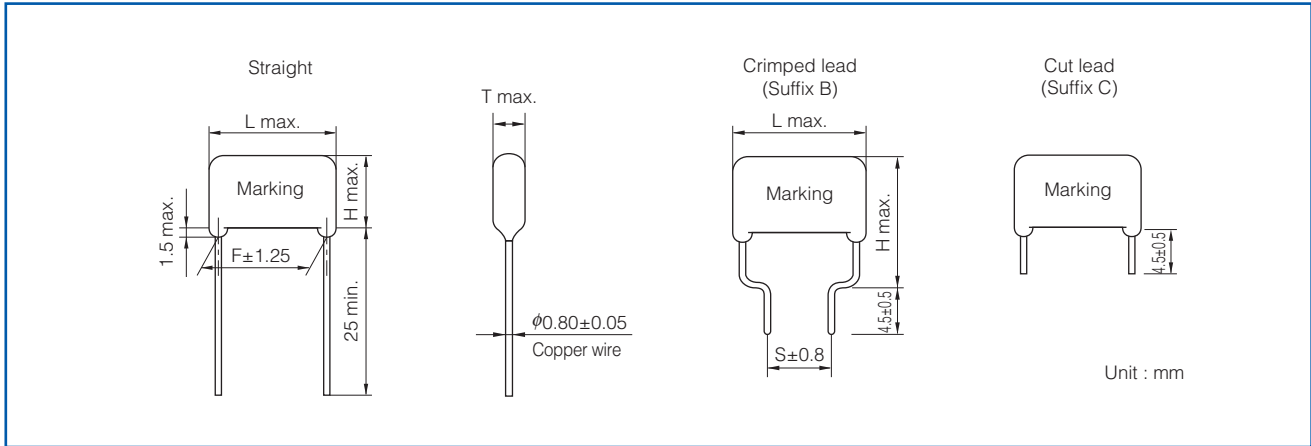


### Specifications

Category temp. range (Including temperature-rise on unit surface)	- 40 °C to +105 °C	
Rated voltage	1000 V.DC, 1250 V.DC (1000 Vp-p) 1600 V.DC (1200 Vp-p), 2000 V.DC (1500 Vp-p) (Derating of rated voltage by 1.25 %/°C at more than 85 °C)	
Capacitance range	1000 V.DC	0.0075 μF to 0.10 μF
	1250 V.DC	0.0036 μF to 0.10 μF
	1600 V.DC	0.0013 μF to 0.056 μF
	2000 V.DC	0.001 μF to 0.015 μF
Capacitance tolerance	±3 % (H), ±5 % (J)	
Dissipation factor (tan δ)	tan δ ≤ 0.1 % (20 °C, 1 kHz) tan δ ≤ 0.2 % (20 °C, 10 kHz)	
Withstand voltage	Between terminals : Rated volt. (V.DC) × 150 %, 60 s Between terminals to enclosure : 1500 V.AC 60 s	
Insulation resistance (IR)	IR ≥ 30000 MΩ (20 °C, 500 V.DC, 60 s)	

\* In case of applying voltage in alternating current (50 Hz or 60 Hz sine wave) to a capacitor with DC rated voltage, please refer to the page of "Permissible voltage (R.M.S) in alternating current corresponding to DC rated voltage".

## Dimensions

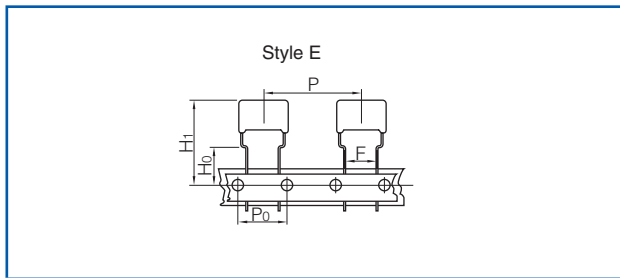


## Packaging specifications for bulk package

- Packing quantity : 100 pcs./bag

## Taping specifications for automatic insertion

- Taping style



\* Refer to the page of taping specifications.

- Taping style

Series	Rated voltage (V.DC)	Capacitance range (μF)	Taping style						Packing	suffix
			AD	AS	B	C	D	E		
ECWH(V)	1000	0.0075 to 0.10						○	Ammo	R( ) V
	1250	0.0036 to 0.051						○		R( ) V
	1600	0.0013 to 0.020						○		R( ) V
	2000	0.0010 to 0.015						○		R( ) V

\* See the column "Rating · Dimensions · Quantity" for packing quantity

- Lead spacing

Style	Lead spacing
E	7.5 mm

## Rating · Dimensions · Quantity

● Rated voltage : 1000 V.DC, Capacitance tolerance :  $\pm 3\%$ (H),  $\pm 5\%$ (J)

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty	
		L max.	T max.	H max.		F	S	$\phi$ d	Taping	Bulk
				Straight	Crimped lead				Straight	Crimped lead
ECWH10752□V( )	0.0075	18.0	6.0	12.5	17.5	15.0	10.0	0.8	500	
ECWH10822□V( )	0.0082	18.0	6.0	12.5	17.5	15.0	10.0	0.8		
ECWH10912□V( )	0.0091	18.0	6.0	13.0	18.0	15.0	10.0	0.8		
ECWH10103□V( )	0.010	18.0	6.5	13.0	18.0	15.0	10.0	0.8		
ECWH10113□V( )	0.011	18.0	6.5	13.5	18.5	15.0	10.0	0.8		
ECWH10123□V( )	0.012	18.0	6.5	13.5	18.5	15.0	10.0	0.8		
ECWH10133□V( )	0.013	18.0	7.0	13.5	18.5	15.0	10.0	0.8		
ECWH10153□V( )	0.015	18.0	7.0	14.0	19.0	15.0	10.0	0.8		
ECWH10163□V( )	0.016	18.0	7.5	14.0	19.0	15.0	10.0	0.8		
ECWH10183□V( )	0.018	18.0	7.5	14.5	19.5	15.0	10.0	0.8		
ECWH10203□V( )	0.020	18.0	8.0	15.0	20.0	15.0	10.0	0.8	400	
ECWH10223□V( )	0.022	18.0	8.5	15.0	20.0	15.0	10.0	0.8		
ECWH10243□V( )	0.024	18.0	8.5	15.5	20.5	15.0	10.0	0.8		
ECWH10273□V( )	0.027	18.0	9.0	16.0	21.0	15.0	10.0	0.8	300	500
ECWH10303□V( )	0.030	18.0	9.5	16.5	21.5	15.0	10.0	0.8		
ECWH10333□V( )	0.033	23.0	7.5	16.0	21.0	20.0	15.0	0.8	400	
ECWH10363□V( )	0.036	23.0	7.5	16.0	21.0	20.0	15.0	0.8		
ECWH10393□V( )	0.039	23.0	8.0	16.5	21.5	20.0	15.0	0.8		
ECWH10433□V( )	0.043	23.0	8.5	16.5	21.5	20.0	15.0	0.8		
ECWH10473□V( )	0.047	23.0	8.5	17.0	22.0	20.0	15.0	0.8		
ECWH10513□V( )	0.051	23.0	9.0	17.5	22.5	20.0	15.0	0.8	300	
ECWH10563□V( )	0.056	23.0	9.5	17.5	22.5	20.0	15.0	0.8		
ECWH10623□V( )	0.062	23.0	9.5	18.0	23.0	20.0	15.0	0.8		
ECWH10683□V( )	0.068	23.0	10.0	19.0	24.0	20.0	15.0	0.8		
ECWH10753□V( )	0.075	23.0	10.5	19.5	24.5	20.0	15.0	0.8		
ECWH10823□V( )	0.082	23.0	11.0	20.0	25.0	20.0	15.0	0.8		
ECWH10913□V( )	0.091	23.0	11.5	20.5	25.5	20.0	15.0	0.8		
ECWH10104□V( )	0.10	23.0	12.0	21.0	26.0	20.0	15.0	0.8		

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

● Rated voltage : 1250 V.DC, Capacitance tolerance :  $\pm 3\%$ (H),  $\pm 5\%$ (J)

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty					
		L max.	T max.	H max.		F	S	$\phi$ d	Taping	Bulk				
				Straight	Crimped lead	Straight	Crimped lead		7.5 mm	Straight	Crimped lead			
ECWH12362□V( )	0.0036	18.0	6.0	12.5	17.5	15.0	10.0	0.8	500	500	500			
ECWH12392□V( )	0.0039	18.0	6.0	12.5	17.5	15.0	10.0	0.8						
ECWH12432□V( )	0.0043	18.0	6.0	13.0	18.0	15.0	10.0	0.8						
ECWH12472□V( )	0.0047	18.0	6.0	13.0	18.0	15.0	10.0	0.8						
ECWH12512□V( )	0.0051	18.0	6.5	13.0	18.0	15.0	10.0	0.8						
ECWH12562□V( )	0.0056	18.0	6.5	13.5	18.5	15.0	10.0	0.8						
ECWH12622□V( )	0.0062	18.0	6.5	13.5	18.5	15.0	10.0	0.8						
ECWH12682□V( )	0.0068	18.0	7.0	13.5	18.5	15.0	10.0	0.8						
ECWH12752□V( )	0.0075	18.0	7.0	14.0	19.0	15.0	10.0	0.8						
ECWH12822□V( )	0.0082	18.0	7.5	14.0	19.0	15.0	10.0	0.8						
ECWH12912□V( )	0.0091	18.0	7.5	14.5	19.5	15.0	10.0	0.8						
ECWH12103□V( )	0.010	18.0	8.0	15.0	20.0	15.0	10.0	0.8	400	500	500			
ECWH12113□V( )	0.011	18.0	8.5	15.0	20.0	15.0	10.0	0.8						
ECWH12123□V( )	0.012	18.0	8.5	15.5	20.5	15.0	10.0	0.8						
ECWH12133□V( )	0.013	18.0	9.0	15.5	20.5	15.0	10.0	0.8						
ECWH12153□V( )	0.015	18.0	9.5	16.0	21.0	15.0	10.0	0.8	500	500	500			
ECWH12163□V( )	0.016	23.0	7.5	16.0	21.0	20.0	15.0	0.8						
ECWH12183□V( )	0.018	23.0	7.5	16.0	21.0	20.0	15.0	0.8	400	500	500			
ECWH12203□V( )	0.020	23.0	8.0	16.5	21.5	20.0	15.0	0.8						
ECWH12223□V( )	0.022	23.0	8.5	16.5	21.5	20.0	15.0	0.8	400	500	500			
ECWH12243□V( )	0.024	23.0	8.5	17.0	22.0	20.0	15.0	0.8						
ECWH12273□V( )	0.027	23.0	9.0	17.5	22.5	20.0	15.0	0.8	300	500	500			
ECWH12303□V( )	0.030	23.0	9.5	18.0	23.0	20.0	15.0	0.8						
ECWH12333□V( )	0.033	23.0	10.0	18.5	23.5	20.0	15.0	0.8						
ECWH12363□V( )	0.036	23.0	10.0	19.0	24.0	20.0	15.0	0.8						
ECWH12393□V( )	0.039	23.0	10.5	19.5	24.5	20.0	15.0	0.8						
ECWH12433□V( )	0.043	23.0	11.0	20.0	25.0	20.0	15.0	0.8						
ECWH12473□V( )	0.047	23.0	11.5	20.5	25.5	20.0	15.0	0.8						
ECWH12513□V( )	0.051	23.0	12.0	21.0	26.0	20.0	15.0	0.8						
ECWH12563□V( )	0.056	28.0	11.5	20.0	25.0	25.0	17.5	0.8				-	500	500
ECWH12623□V( )	0.062	28.0	12.0	21.0	26.0	25.0	17.5	0.8						
ECWH12683□V( )	0.068	28.0	12.5	21.5	26.5	25.0	17.5	0.8						
ECWH12753□V( )	0.075	28.0	13.5	22.0	27.0	25.0	17.5	0.8						
ECWH12823□V( )	0.082	28.0	14.0	22.5	27.5	25.0	17.5	0.8						
ECWH12913□V( )	0.091	28.0	14.5	23.0	28.0	25.0	17.5	0.8						
ECWH12104□V( )	0.10	28.0	15.5	24.0	29.0	25.0	17.5	0.8						

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

● Rated voltage : 1600 V.DC, Capacitance tolerance :  $\pm 3\%$ (H),  $\pm 5\%$ (J)

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty		
		L max.	T max.	H max.		F	S	$\phi$ d	Taping	Bulk	
				Straight	Crimped lead	Straight	Crimped lead		7.5 mm	Straight	Crimped lead
ECWH16132□V( )	0.0013	18.0	6.5	13.0	18.0	15.0	10.0	0.8	500		
ECWH16152□V( )	0.0015	18.0	6.5	13.5	18.5	15.0	10.0	0.8			
ECWH16162□V( )	0.0016	18.0	7.0	13.5	18.5	15.0	10.0	0.8			
ECWH16182□V( )	0.0018	18.0	7.0	14.0	19.0	15.0	10.0	0.8			
ECWH16202□V( )	0.0020	18.0	7.0	14.0	19.0	15.0	10.0	0.8			
ECWH16222□V( )	0.0022	18.0	6.5	13.5	18.5	15.0	10.0	0.8			
ECWH16242□V( )	0.0024	18.0	7.0	13.5	18.5	15.0	10.0	0.8			
ECWH16272□V( )	0.0027	18.0	7.0	14.0	19.0	15.0	10.0	0.8			
ECWH16302□V( )	0.003	18.0	7.5	14.0	19.0	15.0	10.0	0.8	400		
ECWH16332□V( )	0.0033	18.0	7.5	14.5	19.5	15.0	10.0	0.8			
ECWH16362□V( )	0.0036	18.0	7.0	13.5	18.5	15.0	10.0	0.8	500		
ECWH16392□V( )	0.0039	18.0	7.0	14.0	19.0	15.0	10.0	0.8			
ECWH16432□V( )	0.0043	18.0	7.0	14.0	19.0	15.0	10.0	0.8			
ECWH16472□V( )	0.0047	23.0	6.5	14.5	19.5	20.0	15.0	0.8			
ECWH16512□V( )	0.0051	23.0	6.5	15.0	20.0	20.0	15.0	0.8			
ECWH16562□V( )	0.0056	23.0	6.5	15.0	20.0	20.0	15.0	0.8			
ECWH16622□V( )	0.0062	23.0	7.0	15.0	20.0	20.0	15.0	0.8			
ECWH16682□V( )	0.0068	23.0	7.0	15.5	20.5	20.0	15.0	0.8			
ECWH16752□V( )	0.0075	23.0	7.5	15.5	20.5	20.0	15.0	0.8	400	500	500
ECWH16822□V( )	0.0082	23.0	7.5	16.0	21.0	20.0	15.0	0.8			
ECWH16912□V( )	0.0091	23.0	8.0	16.0	21.0	20.0	15.0	0.8			
ECWH16103□V( )	0.010	23.0	8.0	16.5	21.5	20.0	15.0	0.8			
ECWH16113□V( )	0.011	23.0	8.5	17.0	22.0	20.0	15.0	0.8	300		
ECWH16123□V( )	0.012	23.0	9.0	17.0	22.0	20.0	15.0	0.8			
ECWH16133□V( )	0.013	23.0	9.0	17.5	22.5	20.0	15.0	0.8			
ECWH16153□V( )	0.015	23.0	9.5	18.0	23.0	20.0	15.0	0.8			
ECWH16163□V( )	0.016	23.0	10.0	18.5	23.5	20.0	15.0	0.8			
ECWH16183□V( )	0.018	23.0	10.5	19.5	24.5	20.0	15.0	0.8			
ECWH16203□V( )	0.020	23.0	11.0	20.0	25.0	20.0	15.0	0.8	-		
ECWH16223□V( )	0.022	28.0	9.5	18.0	23.0	25.0	17.5	0.8			
ECWH16243□V( )	0.024	28.0	10.0	18.5	23.5	25.0	17.5	0.8			
ECWH16273□V( )	0.027	28.0	10.5	19.5	24.5	25.0	17.5	0.8			
ECWH16303□V( )	0.030	28.0	11.0	20.0	25.0	25.0	17.5	0.8			
ECWH16333□V( )	0.033	28.0	11.5	20.5	25.5	25.0	17.5	0.8			
ECWH16363□V( )	0.036	28.0	12.5	21.5	26.5	25.0	17.5	0.8			
ECWH16393□V( )	0.039	28.0	13.5	22.0	27.0	25.0	17.5	0.8			
ECWH16433□V( )	0.043	28.0	14.5	22.5	27.5	25.0	17.5	0.8			
ECWH16473□V( )	0.047	28.0	15.0	23.5	28.5	25.0	17.5	0.8			
ECWH16513□V( )	0.051	28.0	15.5	24.0	29.0	25.0	17.5	0.8			
ECWH16563□V( )	0.056	28.0	16.0	24.5	29.5	25.0	17.5	0.8			

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Rating · Dimensions · Quantity

● Rated voltage : 2000 V.DC, Capacitance tolerance :  $\pm 3\%$ (H),  $\pm 5\%$ (J)

Part No.	Cap. ( $\mu$ F)	Dimensions (mm)							Min. order Q'ty	
		L max.	T max.	H max.		F	S		Taping	Bulk
				Straight	Crimped lead		Straight	Crimped lead	$\phi$ d	7.5 mm
ECWH20102□V( )	0.0010	18.0	6.5	13.5	18.5	15.0	10.0	0.8	500	500
ECWH20112□V( )	0.0011	18.0	6.5	13.5	18.5	15.0	10.0	0.8		
ECWH20122□V( )	0.0012	18.0	7.0	13.5	18.5	15.0	10.0	0.8		
ECWH20132□V( )	0.0013	18.0	7.0	14.0	19.0	15.0	10.0	0.8		
ECWH20152□V( )	0.0015	18.0	7.5	14.0	19.0	15.0	10.0	0.8	400	
ECWH20162□V( )	0.0016	18.0	7.5	14.5	19.5	15.0	10.0	0.8		
ECWH20182□V( )	0.0018	18.0	8.0	14.5	19.5	15.0	10.0	0.8		
ECWH20202□V( )	0.0020	18.0	8.0	15.0	20.0	15.0	10.0	0.8		
ECWH20222□V( )	0.0022	18.0	8.5	15.0	20.0	15.0	10.0	0.8	300	
ECWH20242□V( )	0.0024	18.0	8.5	15.5	20.5	15.0	10.0	0.8		
ECWH20272□V( )	0.0027	18.0	9.0	16.0	21.0	15.0	10.0	0.8		
ECWH20302□V( )	0.0030	18.0	9.5	16.0	21.0	15.0	10.0	0.8		
ECWH20332□V( )	0.0033	18.0	8.5	15.5	20.5	15.0	10.0	0.8	400	
ECWH20362□V( )	0.0036	18.0	9.0	15.5	20.5	15.0	10.0	0.8	300	
ECWH20392□V( )	0.0039	18.0	9.0	16.0	21.0	15.0	10.0	0.8		
ECWH20432□V( )	0.0043	18.0	9.5	16.0	21.0	15.0	10.0	0.8		
ECWH20472□V( )	0.0047	23.0	7.0	15.5	20.5	20.0	15.0	0.8	500	
ECWH20512□V( )	0.0051	23.0	7.5	16.0	21.0	20.0	15.0	0.8	400	
ECWH20562□V( )	0.0056	23.0	7.5	16.0	21.0	20.0	15.0	0.8		
ECWH20622□V( )	0.0062	23.0	8.0	16.5	21.5	20.0	15.0	0.8		
ECWH20682□V( )	0.0068	23.0	8.5	16.5	21.5	20.0	15.0	0.8		
ECWH20752□V( )	0.0075	23.0	9.5	18.0	23.0	20.0	15.0	0.8	300	
ECWH20822□V( )	0.0082	23.0	10.0	18.0	23.0	20.0	15.0	0.8		
ECWH20912□V( )	0.0091	23.0	10.0	19.0	24.0	20.0	15.0	0.8		
ECWH20103□V( )	0.010	23.0	10.5	19.5	24.5	20.0	15.0	0.8		
ECWH20113□V( )	0.011	23.0	11.0	20.0	25.0	20.0	15.0	0.8		
ECWH20123□V( )	0.012	23.0	11.5	20.5	25.5	20.0	15.0	0.8		
ECWH20133□V( )	0.013	23.0	12.0	21.0	26.0	20.0	15.0	0.8		
ECWH20153□V( )	0.015	23.0	12.0	21.5	26.5	20.0	15.0	0.8		

\* □ : Capacitance tolerance code  
( ) : Suffix for lead crimped

## Guidelines and precautions regarding the technical information and use of our products described in this online catalog.

- If you want to use our products described in this online catalog for applications requiring special qualities or reliability, or for applications where the failure or malfunction of the products may directly jeopardize human life or potentially cause personal injury (e.g. aircraft and aerospace equipment, traffic and transportation equipment, combustion equipment, medical equipment, accident prevention, anti-crime equipment, and/or safety equipment), it is necessary to verify whether the specifications of our products fit to such applications. Please ensure that you will ask and check with our inquiry desk as to whether the specifications of our products fit to such applications use before you use our products.
- The quality and performance of our products as described in this online catalog only apply to our products when used in isolation. Therefore, please ensure you evaluate and verify our products under the specific circumstances in which our products are assembled in your own products and in which our products will actually be used.
- If you use our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you set up protection circuits and redundancy circuits in order to ensure safety of your equipment.
- The products and product specifications described in this online catalog are subject to change for improvement without prior notice. Therefore, please be sure to request and confirm the latest product specifications which explain the specifications of our products in detail, before you finalize the design of your applications, purchase, or use our products.
- The technical information in this online catalog provides examples of our products' typical operations and application circuits. We do not guarantee the non-infringement of third party's intellectual property rights and we do not grant any license, right, or interest in our intellectual property.
- If any of our products, product specifications and/or technical information in this online catalog is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially with regard to security and export control, shall be observed.

## <Regarding the Certificate of Compliance with the EU RoHS Directive/REACH Regulations>

- The switchover date for compliance with the RoHS Directive/REACH Regulations varies depending on the part number or series of our products.
- When you use the inventory of our products for which it is unclear whether those products are compliant with the RoHS Directive/REACH Regulation, please select "Sales Inquiry" in the website inquiry form and contact us.

**We do not take any responsibility for the use of our products outside the scope of the specifications, descriptions, guidelines and precautions described in this online catalog.**

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